



**OPTIONAL ANNUAL REPORT TEMPLATE**

Drinking-Water System Number:	220000059
Drinking-Water System Name:	Palmerston Drinking Water System
Drinking-Water System Owner:	Town of Minto
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2013 to December 31, 2013

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [<input checked="" type="checkbox"/>]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [<input checked="" type="checkbox"/>] No [ ]</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Town of Minto 5941 Hwy #89 R.R. #1 Harriston, ON N0G 1Z0</p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p>Number of Designated Facilities served: <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 5px auto;">N/A</div></p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</p> <p>Number of Interested Authorities you report to: <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 5px auto;">N/A</div></p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</p>
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**Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report**

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
N/A	N/A



# Ontario Drinking-Water Systems Regulation O. Reg. 170/03

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?

Yes [ ] No []

Indicate how you notified system users that your annual report is available, and is free of charge.

- Public access/notice via the web Town of Minto Website
- Public access/notice via Government Office
- Public access/notice via a newspaper Advertisements in Local Newspapers
- Public access/notice via Public Request
- Public access/notice via a Public Library
- Public access/notice via other method Tax Letter

## Describe your Drinking-Water System

Palmerston is serviced by a waterworks that consists of: four drilled bedrock wells, two pumphouses, an elevated 2500 m<sup>3</sup> steel storage tank and a distribution network of watermains, ranging in diameter from 100 mm to 250 mm. In the event of a prolonged power outage, a portable generator is available to either pumphouse to supply back-up power.

The bedrock wells are equipped with submersible pumps that discharge directly into the William Street pumphouse (Wells #1 and #2) or the Whites Road pumphouse (Well #3 and #4). In the pumphouse, the raw water supply is injected with 12% sodium hypochlorite for disinfection and the chemical PW1680, for iron sequestering. The treated water leaves the pumphouse and enters an underground contact pipe and is discharged into the distribution system after adequate contact time is achieved.

The wells are controlled (*start/stop*) automatically based on elevated storage tank liquid levels and pressures in the distribution system. Each pumphouse is equipped with alarms for chlorination system failure (*and corresponding lockout of well pumps*), low water level and intrusion. Each pumphouse has continuous monitoring analyzers for both chlorine and turbidity, but the turbidity analyzer is not alarmed.

SCADA provides continuous monitoring to this system.

## List all water treatment chemicals used over this reporting period

- 12% Sodium Hypochlorite (*disinfectant*)
- PW1680 (*sequestering agent*)

**Were any significant expenses incurred to?**

- Install required equipment
- Repair required equipment
- Replace required equipment

**Please provide a brief description and a breakdown of monetary expenses incurred**

To meet the requirements of O. Reg. 170/03, upgrades, installations and replacement of various system components have been completed. However, maintaining the system includes repair and replacement of individual components as required.

In 2013, \$26,115.00 was spent on well # 4 and \$2,520.00 on hydrant replacement and \$285.00 on watermain replacement.

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
N/A	N/A	N/A	N/A	N/A	N/A

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

Type / Location of Sample	Number of Samples	Range of Total Coliform Results (min #)-(max #)	Range of E. Coli or Fecal Results (min #)-(max #)	Range of HPC (min #)-(max #)	Number of HPC or BKG Samples	
Raw	Well #1	53	0 - 0	0 - 0	N/A	N/A
	Well #2	53	0 - 0	0 - 0	N/A	N/A
	Well #3	53	0 - 0	0 - 0	N/A	N/A
	Well #4	53	0 - 0	0 - 0	N/A	N/A
Treated	Well #1	53	0 - 0	0 - 0	<10 - > 2000	53
	Well #2	53	0 - 0	0 - 0	<10 - > 2000	53
	Well #3	53	0 - 0	0 - 0	<10 - > 2000	53
	Well #4	53	0 - 0	0 - 0	<10 - > 2000	53



Type / Location of Sample	Number of Samples	Range of Total Coliform Results (min #)-(max #)	Range of E. Coli or Fecal Results (min #)-(max #)	Range of HPC (min #)-(max #)	Number of HPC or BKG Samples
Distribution	212	0 - 0	0 - 0	<10 - 320	212

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

Operational Testing		Number of Grab Samples	Range of Results (min #) - (max #)	
Turbidity	Raw	Well #1	64	0.37 - 0.88
		Well #2	67	0.32 - 0.89
		Well #3	60	0.30 - 0.84
		Well #4	64	0.22 - 0.90
Chlorine	Treated	Well #1	360	0.91 - 1.65
		Well #2	365	0.89 - 1.65
		Well #3	363	0.92 - 1.73
		Well #4	345	0.89 - 1.99
	Distribution		566	0.71 - 1.64
Fluoride (If the DWS provides fluoridation)		N/A	N/A	

**NOTE:** Record the unit of measure if it is **not** milligrams per litre.

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
N/A	N/A	N/A	N/A	N/A

**Palmerston Well #1**

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Antimony	14/05/13	<0.6	(ug/L)	6
Arsenic	14/05/13	4.3	(ug/L)	25
Barium	14/05/13	89	(ug/L)	1000
Boron	14/05/13	<50	(ug/L)	5000
Cadmium	14/05/13	<0.1	(ug/L)	5
Chromium	14/05/13	<1.0	(ug/L)	50
*Lead			(ug/L)	100
Mercury	14/05/13	<0.1	(ug/L)	1
Selenium	14/05/13	<5	(ug/L)	10
Sodium	23/05/12	17	(mg/L)	20
Uranium	14/05/13	<5	(ug/L)	20
Fluoride	23/05/12	0.21	(mg/L)	1.5
Nitrite	25/02/13	<0.1	(mg/L)	1
	14/05/13	<0.1		
	13/08/13	<0.1		
	12/11/13	<0.1		
Nitrate	25/02/13	0.18	(mg/L)	10
	14/05/13	0.22		
	13/08/13	0.20		
	12/11/13	0.22		

\*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

**Palmerston Well #2**

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Antimony	14/05/13	<0.6	(ug/L)	6
Arsenic	14/05/13	4.3	(ug/L)	25
Barium	14/05/13	90	(ug/L)	1000
Boron	14/05/13	<50	(ug/L)	5000

Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Cadmium	14/05/13	<0.1	(ug/L)	5
Chromium	14/05/13	<1.0	(ug/L)	50
*Lead			(ug/L)	100
Mercury	14/05/13	<0.1	(ug/L)	1
Selenium	14/05/13	<5.0	(ug/L)	10
Sodium	23/05/12	15.4	(mg/L)	20
Uranium	14/05/13	<5.0	(ug/L)	20
Fluoride	23/05/12	0.23	(mg/L)	1.5
Nitrite	25/02/13	<0.1	(mg/L)	1
	14/05/13	<0.1		
	13/08/13	<0.1		
	12/11/13	<0.1		
Nitrate	25/02/13	0.21	(mg/L)	10
	14/05/13	0.20		
	13/08/13	0.30		
	12/11/13	0.25		

\*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

### Pamerston Well #3

#### Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Antimony	14/05/13	<0.6	(ug/L)	6
Arsenic	14/05/13	1.1	(ug/L)	25
Barium	14/05/13	91	(ug/L)	1000
Boron	14/05/13	<50	(ug/L)	5000
Cadmium	14/05/13	<0.1	(ug/L)	5
Chromium	14/05/13	<1.0	(ug/L)	50
*Lead			(ug/L)	100
Mercury	14/05/13	<0.1	(ug/L)	1
Selenium	14/05/13	<5.0	(ug/L)	10
Sodium	23/05/12	12.5	(mg/L)	20
Uranium	14/05/13	<5.0	(ug/L)	20
Fluoride	23/05/12	0.2	(mg/L)	1.5
Nitrite	25/02/13	<0.1	(mg/L)	1



Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
	14/05/13	<0.1		
	13/08/13	<0.1		
	12/11/13	<0.1		
Nitrate	25/02/13	0.15	(mg/L)	10
	14/05/13	0.13		
	13/08/13	0.17		
	12/11/13	0.20		

\*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

**Palmerston Well #4**

**Summary of Inorganic parameters tested during this reporting period or the most recent sample results**

Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Antimony	14/05/13	<0.6	(ug/L)	6
Arsenic	14/05/13	1.1	(ug/L)	25
Barium	14/05/13	89	(ug/L)	1000
Boron	14/05/13	<50	(ug/L)	5000
Cadmium	14/05/13	<0.1	(ug/L)	5
Chromium	14/05/13	<1.0	(ug/L)	50
*Lead	04/05/10	0.00062	(mg/L)	100
Mercury	14/05/13	<0.1	(ug/L)	1
Selenium	14/05/13	<5.0	(ug/L)	10
<u>Sodium</u>	<u>12/23/12</u>	<u>11.3</u>	(mg/L)	20
Uranium	14/05/13	<5.0	(ug/L)	20
Fluoride	04/05/10	0.15	(mg/L)	1.5
Nitrite	25/02/13	<0.1	(mg/L)	1
	14/05/13	<0.1		
	13/08/13	<0.10		
	12/11/13	<0.1		
Nitrate	25/02/13	0.13	(mg/L)	10
	14/05/13	0.14		
	13/08/13	0.14		
	12/11/13	0.16		

\*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential

systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

### Summary of lead testing under Schedule 15.1 during this reporting period

(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Number of Exceedances
Plumbing	44	<1.0 – 6.8 ug/L	N/A
Distribution	6	<1 – <1 ug/L	N/A

\* These results are from samples taken in December 2010 – April 2011 and June - October 2011.

No adverse results were identified.

Further Testing is not required until December 2013 – April 2014 & June – October 2014.

### Palmerston Well #1

#### Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Alachlor	14/05/13	<0.1	(ug/L)	5
Aldicarb	14/05/13	<1.0	(ug/L)	9
Aldrin	14/05/13	<0.02	(ug/L)	
Aldrin + Dieldrin	14/05/13	<0.04	(ug/L)	0.7
alpha-Chlordane	14/05/13	<0.1	(ug/L)	
Aroclor 1242	14/05/13	<0.02	(ug/L)	
Aroclor 1254	14/05/13	<0.02	(ug/L)	
Aroclor 1260	14/05/13	<0.02	(ug/L)	
Atrazine	14/05/13	<0.1	(ug/L)	
Atrazine Desethyl	14/05/13	<0.1	(ug/L)	
Atrazine & Metabolites	14/05/13	<0.2	(ug/L)	
Azinphos-methyl	14/05/13	<0.1	(ug/L)	20
Bendiocarb	14/05/13	<0.2	(ug/L)	40
Benzene	14/05/13	<0.5	(ug/L)	5
Benzo(a)pyrene	14/05/13	<0.01	(ug/L)	0.01
Bromoxynil	14/05/13	<0.2	(ug/L)	5
Carbaryl	14/05/13	<0.2	(ug/L)	90





Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Carbofuran	14/05/13	<0.2	(ug/L)	90
Carbon Tetrachloride	14/05/13	<0.5	(ug/L)	5
Chlordane (Total)	14/05/13	<0.3	(ug/L)	7
Chlorpyrifos	14/05/13	<0.1	(ug/L)	90
Cyanazine	14/05/13	<0.1	(ug/L)	10
Diazinon	14/05/13	<0.1	(ug/L)	20
Dicamba	14/05/13	<0.2	(ug/L)	120
1,2-Dichlorobenzene	14/05/13	<0.5	(ug/L)	200
1,4-Dichlorobenzene	14/05/13	<0.5	(ug/L)	5
Dichlorodiphenyltrichloroethane (DDT) + metabolites	14/05/13	<0.4	(ug/L)	30
1,2-Dichloroethane	14/05/13	<0.5	(ug/L)	5
1,1-Dichloroethylene (vinylidene chloride)	14/05/13	<0.5	(ug/L)	14
Dichloromethane	14/05/13	<0.5	(ug/L)	50
2,4 Dichlorophenol	14/05/13	<0.3	(ug/L)	900
2,4-Dichlorophenoxy acetic acid (2,4-D)	14/05/13	<0.2	(ug/L)	100
Diclofop-methyl	14/05/13	<0.2	(ug/L)	9
Dieldrin	14/05/13	<0.02	(ug/L)	
Dimethoate	14/05/13	<0.1	(ug/L)	20
Dinoseb	14/05/13	<0.2	(ug/L)	10
Diquat	14/05/13	<1.0	(ug/L)	70
Diuron	14/05/13	<1.0	(ug/L)	150
gamma-Chlordane	14/05/13	<0.1	(ug/L)	
Glyphosate	14/05/13	<5.0	(ug/L)	280
Heptachlor + Heptachlor Epoxide	14/05/13	<0.2	(ug/L)	3
Heptachlor	14/05/13	<0.1	(ug/L)	
Heptachlor Epoxide	14/05/13	<0.1	(ug/L)	
Lindane (Total)	14/05/13	<0.1	(ug/L)	4
Malathion	14/05/13	<0.1	(ug/L)	190
Methoxychlor	14/05/13	<0.1	(ug/L)	900
Metolachlor	14/05/13	<0.1	(ug/L)	50
Metribuzin	14/05/13	<0.1	(ug/L)	80
Monochlorobenzene	14/05/13	<0.5	(ug/L)	80
o,p-DDT	14/05/13	<0.1	(ug/L)	
Oxychlordane	14/05/13	<0.1	(ug/L)	
p,p-DDD	14/05/13	<0.1	(ug/L)	
p,p-DDE	14/05/13	<0.1	(ug/L)	
p,p-DDT	14/05/13	<0.1	(ug/L)	
Paraquat	14/05/13	<1.0	(ug/L)	10
Parathion	14/05/13	<0.1	(ug/L)	50
Pentachlorophenol	14/05/13	<0.5	(ug/L)	60

Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Phorate	14/05/13	<0.1	(ug/L)	2
Picloram	14/05/13	<0.2	(ug/L)	190
Polychlorinated Biphenyls (PCB)	14/05/13	<0.035	(ug/L)	3
Prometryne	14/05/13	<0.1	(ug/L)	1
Simazine	14/05/13	<0.1	(ug/L)	10
Temephos	14/05/13	<0.1	(ug/L)	280
Terbufos	14/05/13	<0.2	(ug/L)	1
Tetrachloroethylene (perchloroethylene)	14/05/13	<0.5	(ug/L)	30
2,3,4,6-Tetrachlorophenol	14/05/13	<0.5	(ug/L)	100
Triallate	14/05/13	<0.1	(ug/L)	230
Trichloroethylene	14/05/13	<0.5	(ug/L)	50
2,4,6-Trichlorophenol	14/05/13	<0.5	(ug/L)	5
2,4,5-Trichlorophenoxy acetic acid (2,4,5,-T)	14/05/13	<0.2	(ug/L)	280
Trifluralin	14/05/13	<0.1	(ug/L)	45
Vinyl Chloride	14/05/13	<0.5	(ug/L)	2

**Palmerston Well #2**

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Alachlor	14/05/13	<0.1	(ug/L)	5
Aldicarb	14/05/13	<1.0	(ug/L)	9
Aldrin	14/05/13	<0.02	(ug/L)	
Aldrin + Dieldrin	14/05/13	<0.04	(ug/L)	0.7
alpha-Chlordane	14/05/13	<0.1	(ug/L)	
Aroclor 1242	14/05/13	<0.02	(ug/L)	
Aroclor 1254	14/05/13	<0.02	(ug/L)	
Aroclor 1260	14/05/13	<0.02	(ug/L)	
Atrazine	14/05/13	<0.1	(ug/L)	
Atrazine Desethyl	14/05/13	<0.1	(ug/L)	
Atrazine & Metabolites	14/05/13	<0.2	(ug/L)	
Azinphos-methyl	14/05/13	<0.1	(ug/L)	20
Bendiocarb	14/05/13	<0.2	(ug/L)	40
Benzene	14/05/13	<0.5	(ug/L)	5
Benzo(a)pyrene	14/05/13	<0.01	(ug/L)	0.01
Bromoxynil	14/05/13	<0.2	(ug/L)	5
Carbaryl	14/05/13	<0.2	(ug/L)	90
Carbofuran	14/05/13	<0.2	(ug/L)	90



Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Carbon Tetrachloride	14/05/13	<0.5	(ug/L)	5
Chlordane (Total)	14/05/13	<0.3	(ug/L)	7
Chlorpyrifos	14/05/13	<0.1	(ug/L)	90
Cyanazine	14/05/13	<0.1	(ug/L)	10
Diazinon	14/05/13	<0.1	(ug/L)	20
Dicamba	14/05/13	<0.2	(ug/L)	120
1,2-Dichlorobenzene	14/05/13	<0.5	(ug/L)	200
1,4-Dichlorobenzene	14/05/13	<0.5	(ug/L)	5
Dichlorodiphenyltrichloroethane (DDT) + metabolites	14/05/13	<0.4	(ug/L)	30
1,2-Dichloroethane	14/05/13	<0.5	(ug/L)	5
1,1-Dichloroethylene (vinylidene chloride)	14/05/13	<0.5	(ug/L)	14
Dichloromethane	14/05/13	<0.5	(ug/L)	50
2-4 Dichlorophenol	14/05/13	<0.3	(ug/L)	900
2,4-Dichlorophenoxy acetic acid (2,4-D)	14/05/13	<0.2	(ug/L)	100
Diclofop-methyl	14/05/13	<0.2	(ug/L)	9
Dieldrin	14/05/13	<0.02	(ug/L)	
Dimethoate	14/05/13	<0.1	(ug/L)	20
Dinoseb	14/05/13	<0.2	(ug/L)	10
Diquat	14/05/13	<1.0	(ug/L)	70
Diuron	14/05/13	<1.0	(ug/L)	150
gamma-Chlordane	14/05/13	<0.1	(ug/L)	
Glyphosate	14/05/13	<5.0	(ug/L)	280
Heptachlor + Heptachlor Epoxide	14/05/13	<0.2	(ug/L)	3
Heptachlor	14/05/13	<0.1	(ug/L)	
Heptachlor Epoxide	14/05/13	<0.1	(ug/L)	
Lindane (Total)	14/05/13	<0.1	(ug/L)	4
Malathion	14/05/13	<0.1	(ug/L)	190
Methoxychlor	14/05/13	<0.1	(ug/L)	900
Metolachlor	14/05/13	<0.1	(ug/L)	50
Metribuzin	14/05/13	<0.1	(ug/L)	80
Monochlorobenzene	14/05/13	<0.5	(ug/L)	80
o,p-DDT	14/05/13	<0.1	(ug/L)	
Oxychlordane	14/05/13	<0.1	(ug/L)	
p,p-DDD	14/05/13	<0.1	(ug/L)	
p,p-DDE	14/05/13	<0.1	(ug/L)	
p,p-DDT	14/05/13	<0.1	(ug/L)	
Paraquat	14/05/13	<1.0	(ug/L)	10
Parathion	14/05/13	<0.1	(ug/L)	50
Pentachlorophenol	14/05/13	<0.5	(ug/L)	60
Phorate	14/05/13	<0.1	(ug/L)	2
Picloram	14/05/13	<0.2	(ug/L)	190

Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Polychlorinated Biphenyls (PCB)	14/05/13	<0.035	(ug/L)	3
Prometryne	14/05/13	<0.1	(ug/L)	1
Simazine	14/05/13	<0.1	(ug/L)	10
Temephos	14/05/13	<0.1	(ug/L)	280
Terbufos	14/05/13	<0.2	(ug/L)	1
Tetrachloroethylene (perchloroethylene)	14/05/13	<0.5	(ug/L)	30
2,3,4,6-Tetrachlorophenol	14/05/13	<0.5	(ug/L)	100
Triallate	14/05/13	<0.1	(ug/L)	230
Trichloroethylene	14/05/13	<0.5	(ug/L)	50
2,4,6-Trichlorophenol	14/05/13	<0.5	(ug/L)	5
2,4,5-Trichlorophenoxy acetic acid (2,4,5,-T)	14/05/13	<0.2	(ug/L)	280
Trifluralin	14/05/13	<0.1	(ug/L)	45
Vinyl Chloride	14/05/13	<0.5	(ug/L)	2

### Palmerston Well #3

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Aalachlor	14/05/13	<0.1	(ug/L)	5
Aldicarb	14/05/13	<1.0	(ug/L)	9
Aldrin	14/05/13	<0.02	(ug/L)	
Aldrin + Dieldrin	14/05/13	<0.04	(ug/L)	0.7
alpha-Chlordane	14/05/13	<0.1	(ug/L)	
Aroclor 1242	14/05/13	<0.02	(ug/L)	
Aroclor 1254	14/05/13	<0.02	(ug/L)	
Aroclor 1260	14/05/13	<0.02	(ug/L)	
Atrazine	14/05/13	<0.1	(ug/L)	
Atrazine Desethyl	14/05/13	<0.1	(ug/L)	
Atrazine & Metabolites	14/05/13	<0.2	(ug/L)	
Azinphos-methyl	14/05/13	<0.1	(ug/L)	20
Bendiocarb	14/05/13	<0.2	(ug/L)	40
Benzene	14/05/13	<0.5	(ug/L)	5
Benzo(a)pyrene	14/05/13	<0.01	(ug/L)	0.01
Bromoxynil	14/05/13	<0.2	(ug/L)	5
Carbaryl	14/05/13	<0.2	(ug/L)	90
Carbofuran	14/05/13	<0.2	(ug/L)	90
Carbon Tetrachloride	14/05/13	<0.5	(ug/L)	5
Chlordane (Total)	14/05/13	<0.3	(ug/L)	7



Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Chlorpyrifos	14/05/13	<0.1	(ug/L)	90
Cyanazine	14/05/13	<0.1	(ug/L)	10
Diazinon	14/05/13	<0.1	(ug/L)	20
Dicamba	14/05/13	<0.2	(ug/L)	120
1,2-Dichlorobenzene	14/05/13	<0.5	(ug/L)	200
1,4-Dichlorobenzene	14/05/13	<0.5	(ug/L)	5
Dichlorodiphenyltrichloroethane (DDT) + metabolites	14/05/13	<0.4	(ug/L)	30
1,2-Dichloroethane	14/05/13	<0.5	(ug/L)	5
1,1-Dichloroethylene (vinylidene chloride)	14/05/13	<0.5	(ug/L)	14
Dichloromethane	14/05/13	<0.5	(ug/L)	50
2-4 Dichlorophenol	14/05/13	<0.3	(ug/L)	900
2,4-Dichlorophenoxy acetic acid (2,4-D)	14/05/13	<0.2	(ug/L)	100
Diclofop-methyl	14/05/13	<0.2	(ug/L)	9
Dieldrin	14/05/13	<0.02	(ug/L)	
Dimethoate	14/05/13	<0.1	(ug/L)	20
Dinoseb	14/05/13	<0.2	(ug/L)	10
Diquat	14/05/13	<1.0	(ug/L)	70
Diuron	14/05/13	<1.0	(ug/L)	150
gamma-Chlordane	14/05/13	<0.1	(ug/L)	
Glyphosate	14/05/13	<5.0	(ug/L)	280
Heptachlor + Heptachlor Epoxide	14/05/13	<0.2	(ug/L)	3
Heptachlor	14/05/13	<0.1	(ug/L)	
Heptachlor Epoxide	14/05/13	<0.1	(ug/L)	
Lindane (Total)	14/05/13	<0.1	(ug/L)	4
Malathion	14/05/13	<0.1	(ug/L)	190
Methoxychlor	14/05/13	<0.1	(ug/L)	900
Metolachlor	14/05/13	<0.1	(ug/L)	50
Metribuzin	14/05/13	<0.1	(ug/L)	80
Monochlorobenzene	14/05/13	<0.5	(ug/L)	80
o,p-DDT	14/05/13	<0.1	(ug/L)	
Oxychlordane	14/05/13	<0.1	(ug/L)	
p,p-DDD	14/05/13	<0.1	(ug/L)	
p,p-DDE	14/05/13	<0.1	(ug/L)	
p,p-DDT	14/05/13	<0.1	(ug/L)	
Paraquat	14/05/13	<1.0	(ug/L)	10
Parathion	14/05/13	<0.1	(ug/L)	50
Pentachlorophenol	14/05/13	<0.5	(ug/L)	60
Phorate	14/05/13	<0.1	(ug/L)	2
Picloram	14/05/13	<0.2	(ug/L)	190
Polychlorinated Biphenyls (PCB)	14/05/13	<0.035	(ug/L)	3
Prometryne	14/05/13	<0.1	(ug/L)	1

Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Simazine	14/05/13	<0.1	(ug/L)	10
Temephos	14/05/13	<0.1	(ug/L)	280
Terbufos	14/05/13	<0.2	(ug/L)	1
Tetrachloroethylene (perchloroethylene)	14/05/13	<0.5	(ug/L)	30
2,3,4,6-Tetrachlorophenol	14/05/13	<0.5	(ug/L)	100
Triallate	14/05/13	<0.1	(ug/L)	230
Trichloroethylene	14/05/13	<0.5	(ug/L)	50
2,4,6-Trichlorophenol	14/05/13	<0.5	(ug/L)	5
2,4,5-Trichlorophenoxy acetic acid (2,4,5,-T)	14/05/13	<0.2	(ug/L)	280
Trifluralin	14/05/13	<0.1	(ug/L)	45
Vinyl Chloride	14/05/13	<0.5	(ug/L)	2

#### Palmerston Well #4

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Alachlor	14/05/13	<0.1	(ug/L)	5
Aldicarb	14/05/13	<1.0	(ug/L)	9
Aldrin	14/05/13	<0.02	(ug/L)	
Aldrin + Dieldrin	14/05/13	<0.04	(ug/L)	0.7
alpha-Chlordane	14/05/13	<0.1	(ug/L)	
Aroclor 1242	14/05/13	<0.02	(ug/L)	
Aroclor 1254	14/05/13	<0.02	(ug/L)	
Aroclor 1260	14/05/13	<0.02	(ug/L)	
Atrazine	14/05/13	<0.1	(ug/L)	
Atrazine Desethyl	14/05/13	<0.1	(ug/L)	
Atrazine & Metabolites	14/05/13	<0.2	(ug/L)	
Azinphos-methyl	14/05/13	<0.1	(ug/L)	20
Bendiocarb	14/05/13	<0.2	(ug/L)	40
Benzene	14/05/13	<0.5	(ug/L)	5
Benzo(a)pyrene	14/05/13	<0.01	(ug/L)	0.01
Bromoxynil	14/05/13	<0.2	(ug/L)	5
Carbaryl	14/05/13	<0.2	(ug/L)	90
Carbofuran	14/05/13	<0.2	(ug/L)	90
Carbon Tetrachloride	14/05/13	<0.5	(ug/L)	5
Chlordane (Total)	14/05/13	<0.3	(ug/L)	7
Chlorpyrifos	14/05/13	<0.1	(ug/L)	90
Cyanazine	14/05/13	<0.1	(ug/L)	10
Diazinon	14/05/13	<0.1	(ug/L)	20



Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Dicamba	14/05/13	<0.2	(ug/L)	120
1,2-Dichlorobenzene	14/05/13	<0.5	(ug/L)	200
1,4-Dichlorobenzene	14/05/13	<0.5	(ug/L)	5
Dichlorodiphenyltrichloroethane (DDT) + metabolites	14/05/13	<0.4	(ug/L)	30
1,2-Dichloroethane	14/05/13	<0.5	(ug/L)	5
1,1-Dichloroethylene (vinylidene chloride)	14/05/13	<0.5	(ug/L)	14
Dichloromethane	14/05/13	<0.5	(ug/L)	50
2-4 Dichlorophenol	14/05/13	<0.5	(ug/L)	900
2,4-Dichlorophenoxy acetic acid (2,4-D)	14/05/13	<0.2	(ug/L)	100
Diclofop-methyl	14/05/13	<0.2	(ug/L)	9
Dieldrin	14/05/13	<0.02	(ug/L)	
Dimethoate	14/05/13	<0.1	(ug/L)	20
Dinoseb	14/05/13	<0.2	(ug/L)	10
Diquat	14/05/13	<1.0	(ug/L)	70
Diuron	14/05/13	<1.0	(ug/L)	150
gamma-Chlordane	14/05/13	<0.1	(ug/L)	
Glyphosate	14/05/13	<5.0	(ug/L)	280
Heptachlor + Heptachlor Epoxide	14/05/13	<0.2	(ug/L)	3
Heptachlor	14/05/13	<0.1	(ug/L)	
Heptachlor Epoxide	14/05/13	<0.1	(ug/L)	
Lindane (Total)	14/05/13	<0.1	(ug/L)	4
Malathion	14/05/13	<0.1	(ug/L)	190
Methoxychlor	14/05/13	<0.1	(ug/L)	900
Metolachlor	14/05/13	<0.1	(ug/L)	50
Metribuzin	14/05/13	<0.1	(ug/L)	80
Monochlorobenzene	14/05/13	<0.5	(ug/L)	80
o,p-DDT	14/05/13	<0.1	(ug/L)	
Oxychlordane	14/05/13	<0.1	(ug/L)	
p,p-DDD	14/05/13	<0.1	(ug/L)	
p,p-DDE	14/05/13	<0.1	(ug/L)	
p,p-DDT	14/05/13	<0.1	(ug/L)	
Paraquat	14/05/13	<1.0	(ug/L)	10
Parathion	14/05/13	<0.1	(ug/L)	50
Pentachlorophenol	14/05/13	<0.5	(ug/L)	60
Phorate	14/05/13	<0.1	(ug/L)	2
Picloram	14/05/13	<0.2	(ug/L)	190
Polychlorinated Biphenyls (PCB)	14/05/13	<0.035	(ug/L)	3
Prometryne	14/05/13	<0.1	(ug/L)	1
Simazine	14/05/13	<0.1	(ug/L)	10
Temephos	14/05/13	<0.1	(ug/L)	280
Terbufos	14/05/13	<0.2	(ug/L)	1
Tetrachloroethylene (perchloroethylene)	14/05/13	<0.5	(ug/L)	30
2,3,4,6-Tetrachlorophenol	14/05/13	<0.5	(ug/L)	100

Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Triallate	14/05/13	<0.1	(ug/L)	230
Trichloroethylene	14/05/13	<0.5	(ug/L)	50
2,4,6-Trichlorophenol	14/05/13	<0.5	(ug/L)	5
2,4,5-Trichlorophenoxy acetic acid (2,4,5,-T)	14/05/13	<0.2	(ug/L)	280
Trifluralin	14/05/13	<0.1	(ug/L)	45
Vinyl Chloride	14/05/13	<0.5	(ug/L)	2

### Palmerston Distribution System

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
THM	25/02/13	2.2	(ug/L)	100
	14/05/13	5.6		
	13/08/13	5.7		
	12/11/13	8.8		

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
N/A	N/A	N/A	N/A

*(Only if DWS category is large municipal residential, small municipal residential, large municipal non residential, non municipal year round residential, large non municipal non residential)*